

**WHAT IS CLAIMED IS:**

1. A distributed network search method, comprising:

5 receiving a query request from a consumer, wherein the query request includes a search query;

resolving the search query with an index of provider registrations to select one or more provider registrations;

10 routing the search query to at least one provider specified by the one or more selected provider registrations;

15 receiving a query response from said at least one provider, wherein the query response includes search results;

routing the search results to the consumer.

2. The method as recited in claim 1, wherein the query request and the query  
20 response are formatted according to a query routing protocol, wherein the query routing protocol specifies a mark-up language format for communicating query requests and query responses.

4 x. The method as recited in claim 1, wherein said search query comprises:

25 an indication of a query-space, wherein the query-space defines a structure for indicating and matching search criteria; and

search criteria structured according to the indicated query-space.

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5 4. The method as recited in claim 3, wherein each provider registration comprises:

an indication of a query-space, wherein the query-space defines a structure for  
5 indicating and matching search criteria;

a predicate statement structured according to the indicated query-space, wherein  
the predicate statement defines matching search criteria; and

10 a query server address to which matching search queries are to be directed.

6 5. The method as recited in claim 5, wherein said resolving comprises:

applying the search criteria from the search query to the provider registrations  
15 indicating the same query-space as the search query; and

selecting the provider registrations that have both the same query-space as said  
search query and a predicate statement matching the search criteria from  
the search query.

20 6. The method as recited in claim 5, wherein said routing the search query to  
the query server addresses specified by one or more of the provider registrations selected  
by said resolving.

25 7. The method as recited in claim 1, wherein said receiving a query response  
from at least one provider comprises collating search results received from a plurality of  
providers, and wherein said routing the search results comprises routing the collated  
search results to the consumer.

30 8. The method as recited in claim 1, further comprising:

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receiving registration requests from a plurality of providers, wherein each  
registration request comprises a registration file, wherein the registration  
file comprises an address and a definition of search queries to be sent to  
the address; and

storing the registration files in the index of provider registrations.

<sup>10</sup>  
~~9~~. The method as recited in claim <sup>9</sup>~~8~~, wherein the registration requests, the  
10 query request and the query response are all formatted according to a query routing  
protocol, wherein the query routing protocol specifies a mark-up language format for  
communicating query requests, query responses and registration requests.

<sup>18</sup>  
~~10~~. A network hub coupled to a network, comprising:  
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a router configured to receive query requests from consumers coupled to the  
network, wherein each query request includes a search query;  
a resolver coupled to said router, wherein said resolver is configured to receive the  
20 search queries from said router, and wherein said resolver is further  
configured to access to a provider registration index and resolve each  
search query with the provider registration index to select one or more  
provider registrations for each search query;  
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wherein said router is further configured to receive from said resolver an  
indication of one or more providers selected for each search query and  
route each search query to the one or more selected providers for that  
search query.

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11. The network hub as recited in claim 10, wherein said router is further configured to receive query responses from providers coupled to the network, wherein each query response includes a search query ID and search results.

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5 12. The network hub as recited in claim 11, wherein for each query request said router is further configured to collate the search results received from providers and route the collated search results to the consumer that sent the query request.

Rule 1.126  
14.13

10 The network hub as recited in claim 10, wherein the router is configured to receive the query requests and query responses according to a query response protocol, wherein the query routing protocol specifies a mark-up language format for communicating query requests and query responses.

Rule 1.126  
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15 The network hub as recited in claim 10, wherein each search query comprises:

an indication of a query-space, wherein the query-space defines a structure for indicating and matching search criteria; and

20 search criteria structured according to the indicated query-space.

Rule 1.126  
16.

The network hub as recited in claim 15, wherein each provider registration comprises:

25 an indication of a query-space, wherein the query-space defines a structure for indicating and matching search criteria;

a predicate statement structured according to the indicated query-space, wherein the predicate statement defines matching search criteria; and

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a query server address to which matching search queries are to be directed.

*Row 1/126*  
*17.16*

The network hub as recited in claim 16, wherein for each search query said resolver is further configured to:

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apply the search criteria from the search query to the provider registrations  
indicating the same query-space as the search query; and

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select the provider registrations that have both the same query-space as said search  
query and a predicate statement matching the search criteria from the  
search query.

*Row 1/126*  
*18.17*

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The network hub as recited in claim 17, wherein said router is configured  
to route each search query to the query server addresses specified by one or more of the  
provider registrations selected by said resolver.

*Row 1/126*  
*19.18*

The network hub as recited in claim 10, wherein said router is further  
configured to:

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receive registration requests from a plurality of providers, wherein each  
registration request comprises a registration file, wherein the registration  
file comprises an address and a definition of search queries to be sent to  
the address; and

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store the registration files in the index of provider registrations.

*Row 1/126*  
*20.19*

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The network hub as recited in claim 10, wherein the router is configured to  
receive the registration requests according to a query routing protocol, wherein the query  
routing protocol specifies a mark-up language format for communicating query requests,  
query responses and registration requests.

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Rule 1.126  
20 21.

A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

5 receiving a query request from a consumer, wherein the query request includes a search query;

resolving the search query with an index of provider registrations to select one or more provider registrations;

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routing the search query to at least one provider specified by the one or more selected provider registrations;

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receiving a query response from said at least one provider, wherein the query response includes search results;

routing the search results to the consumer.

Rule 1.126  
21 22.

20 The carrier medium as recited in claim 21, wherein the query request and the query response are formatted according to a query routing protocol, wherein the query routing protocol specifies a mark-up language format for communicating query requests and query responses.

Rule 1.126  
22 23.

25 The carrier medium as recited in claim 21, wherein said search query comprises:

an indication of a query-space, wherein the query-space defines a structure for indicating and matching search criteria; and

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search criteria structured according to the indicated query-space.

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Rule 1.126  
23 24.

The carrier medium as recited in claim 23, wherein each provider registration comprises:

5 an indication of a query-space, wherein the query-space defines a structure for indicating and matching search criteria;

a predicate statement structured according to the indicated query-space, wherein the predicate statement defines matching search criteria; and

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a query server address to which matching search queries are to be directed.

Rule 1.126  
24 25.

The carrier medium as recited in claim 24, wherein said resolving comprises:

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applying the search criteria from the search query to the provider registrations indicating the same query-space as the search query; and

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selecting the provider registrations that have both the same query-space as said search query and a predicate statement matching the search criteria from the search query.

Rule 1.126  
25 26.

The carrier medium as recited in claim 25, wherein said routing the search query to the query server addresses specified by one or more of the provider registrations selected by said resolving.

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Rule 1.126  
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The carrier medium as recited in claim 21, wherein said receiving a query response from at least one provider comprises collating search results received from a plurality of providers, and wherein said routing the search results comprises routing the collated search results to the consumer.

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The carrier medium as recited in claim 1, wherein the program instructions are further computer-executable to implement:

5 receiving registration requests from a plurality of providers, wherein each registration request comprises a registration file, wherein the registration file comprises an address and a definition of search queries to be sent to the address; and

10 storing the registration files in the index of provider registrations.

Rev 1.126  
28 29.

The carrier medium as recited in claim 28, wherein the registration requests, the query request and the query response are all formatted according to a query routing protocol, wherein the query routing protocol specifies a mark-up language format for communicating query requests, query responses and registration requests.

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